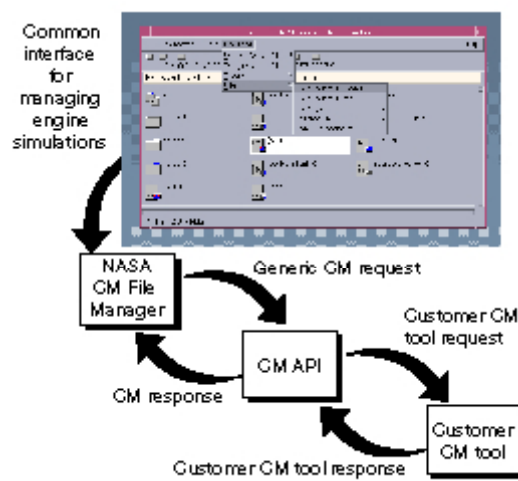


Configuration Management File Manager Developed for Numerical Propulsion System Simulation

One of the objectives of the High Performance Computing and Communication Project's (HPCCP) Numerical Propulsion System Simulation (NPSS) is to provide a common and consistent way to manage applications, data, and engine simulations. The NPSS Configuration Management (CM) File Manager integrated with the Common Desktop Environment (CDE) window management system provides a common look and feel for the configuration management of data, applications, and engine simulations for U.S. engine companies. In addition, CM File Manager provides tools to manage a simulation. Features include managing input files, output files, textual notes, and any other material normally associated with simulation. The CM File Manager includes a generic configuration management Application Program Interface (API) that can be adapted for the configuration management repositories of any U.S. engine company.

Guided by emerging desktop standards, a team consisting of NASA Lewis Research Center personnel and representatives from U.S. engine and airframe companies defined, developed, and implemented a standard graphical user interface windowing system for launching and administering simulations with configuration management access functions and file management tools. The NPSS CM File Manager contains a common windowing system based on CDE that contains the necessary tools an engineer requires for designing and analyzing engines. The software was developed following I. Jacobson's Object-Oriented Design methodology and was implemented in C++.

In March and June of 1996, Lewis released beta versions of the NPSS CM File Manager. In September of 1996, Version 1.0, with documentation, was released to U.S. engine companies.



Configuration Management (CM) File Manager. (Application Program Interface, API.)

The development of the NPSS CM File Manager provides U.S. aeropropulsion companies a common tool for creating and modifying engine simulations. Since the CM File Manager was built on a desktop standard (CDE), it is easy for engine companies to use, accept, and manage. In addition, U.S. engine companies could save millions of dollars by using standard analysis and design tools in precompetitive areas.

During fiscal 1997, NPSS will accept enhancements and modifications to the CM File Manager. The modifications will be done by a third party that can provide long-term software support.

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